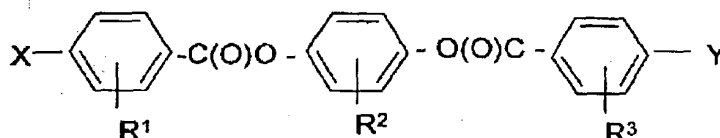


**Amendments to the Claims:**

1-104. (Canceled).

105. (New) A method for producing a blend comprising randomly substituted mesogens, said method comprising:

providing one or more platform molecules have the following general structure:



wherein:

X and Y are independently selected from the group consisting of terminal functionalities and spacer groups, one or more member selected from the group consisting of X and Y comprising one or more spacer groups;

R<sup>2</sup> is a bulky organic group whereby, when both X and Y are reacted with polymerizable groups to produce polymerizable mesogens, R<sup>2</sup> provides sufficient steric hindrance to achieve a nematic state at room temperature while suppressing crystallinity of said polymerizable mesogens at room temperature; and,

R<sup>1</sup> and R<sup>3</sup> are selected from groups less bulky than R<sup>2</sup>; and independently substituting at least one member selected from the group consisting of X and Y with a polymerizable group, thereby producing a blend of randomly substituted mesogens.

1           106. (New) The method of claim 105 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

1           107. (New) The method of claim 106 wherein X comprises a terminal functionality  
2 and Y comprises a polymerizable group in about 60 wt.% of said blend of randomly  
3 substituted mesogens.

1           108. (New) The method of claim 106 wherein X comprises a terminal functionality  
2 and Y comprises a polymerizable group in about 70 wt.% of said blend of randomly  
3 substituted mesogens.

1           109. (New) The method of claim 106 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy groups, methacryloyloxy groups,  
3 acryloyloxy alkoxy groups, and methacryloxyalkoxy groups comprising an alkyl moiety  
4 having from about 2 to about 12 carbon atoms and comprising  $CH_2$  groups, wherein one or  
5 more of said  $CH_2$  groups independently can be substituted by oxygen, sulfur, or an ester  
6 group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

1           110. (New) The method of claim 107 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy groups, methacryloyloxy groups,  
3 acryloyloxy alkoxy groups, and methacryloxyalkoxy groups comprising an alkyl moiety  
4 having from about 2 to about 12 carbon atoms and comprising  $CH_2$  groups, wherein one or  
5 more of said  $CH_2$  groups independently can be substituted by oxygen, sulfur, or an ester  
6 group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

1           111. (New) The method of claim 108 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy groups, methacryloyloxy groups,

3 acryloyloxy alkoxy groups, and methacryloyloxyalkoxy groups comprising an alkyl moiety  
4 having from about 2 to about 12 carbon atoms and comprising CH<sub>2</sub> groups, wherein one or  
5 more of said CH<sub>2</sub> groups independently can be substituted by oxygen, sulfur, or an ester  
6 group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

1 112. (New) The method of claim 106 wherein said polymerizable groups are  
2 selected from the group consisting of cinnamoyloxy groups, acryloyloxy groups,  
3 methacryloyloxy groups, acryloyloxy alkoxy groups and methacryloyloxy alkoxy groups  
4 comprising an alkyl moiety having from about 2 to about 12 carbon atoms, thiol alkoxy  
5 groups comprising an alkyl moiety having from about 2 to about 12 carbon atoms, said alkyl  
6 moiety comprising CH<sub>2</sub> groups, wherein one or more of said CH<sub>2</sub> groups independently can  
7 be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms  
8 separate said oxygen or said ester group.

1 113. (New) The method of claim 108 wherein said polymerizable groups are  
2 selected from the group consisting of cinnamoyloxy groups, acryloyloxy groups,  
3 methacryloyloxy groups, acryloyloxy alkoxy groups and methacryloyloxy alkoxy groups  
4 comprising an alkyl moiety having from about 2 to about 12 carbon atoms, thiol alkoxy  
5 groups comprising an alkyl moiety having from about 2 to about 12 carbon atoms, said alkyl  
6 moiety comprising CH<sub>2</sub> groups, wherein one or more of said CH<sub>2</sub> groups independently can  
7 be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms  
8 separate said oxygen or said ester group.

1 114. (New) The method of claim 106 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy alkoxy groups and methacryloyloxy

3 alkoxy groups.

1 115. (New) The method of claim 107 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy alkoxy groups and methacryloyloxy  
3 alkoxy groups.

1 116. (New) The method of claim 108 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy alkoxy groups and methacryloyloxy  
3 alkoxy groups.

1 117. (New) The method of claim 106 wherein said polymerizable groups are  
2 methacryloyloxy alkoxy groups.

1 118. (New) The method of claim 108 wherein said polymerizable groups are  
2 methacryloyloxy alkoxy groups.

1 119. (New) The method of claim 106 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1 120. (New) The method of claim 107 wherein are selected from the group  
2 consisting of hydroxyl groups, amino groups, sulfhydryl groups, halogen atoms, alkoxy  
3 groups, and spacer groups.

1 121. (New) The method of claim 108 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1 122. (New) The method of claim 111 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,

3 halogen atoms, alkoxy groups, and spacer groups.

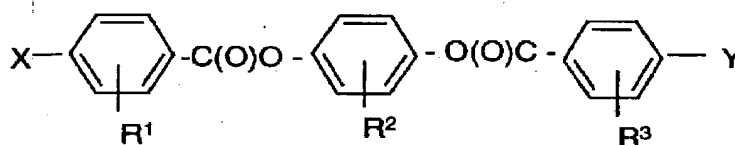
1 123. (New) The method of claim 113 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1 124. (New) The method of claim 116 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1 125. (New) The method of claim 118 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1 126. (New) A method for producing a blend comprising randomly substituted  
2 mesogens, said method comprising:

3 providing one or more platform molecules have the following general structure:



5 wherein

6 X comprises a terminal functionality and Y comprises a polymerizable  
7 group in about 50 wt% or more of said blend, and one or more  
8 members selected from the group consisting of X and Y  
9 comprises one or more spacer groups;

10 R<sup>2</sup> is a bulky organic group whereby, when both X and Y are reacted with

11 polymerizable groups to produce polymerizable mesogens,  $R^2$   
12 provides sufficient steric hindrance to achieve a nematic state at  
13 room temperature while suppressing crystallinity of said  
14 polymerizable mesogens at room temperature; and,  
15  $R^1$  and  $R^3$  are selected from groups less bulky than  $R^2$ ; and  
16 independently substituting at least one member selected from the group  
17 consisting of X and Y with a polymerizable group, thereby producing a  
18 blend of randomly substituted mesogens.

1 127. (New) The method of claim 126 wherein said polymerizable groups are  
2 selected from the group consisting of acryloyloxy groups, methacryloyloxy groups,  
3 acryloyloxy alkoxy groups, and methacryloyloxyalkoxy groups comprising an alkyl moiety  
4 having from about 2 to about 12 carbon atoms and comprising  $CH_2$  groups, wherein one or  
5 more of said  $CH_2$  groups independently can be substituted by oxygen, sulfur, or an ester  
6 group; provided that at least 2 carbon atoms separate said oxygen or said ester group.

1 128. (New) The method of claim 126 wherein said polymerizable groups are  
2 selected from the group consisting of cinnamoyloxy groups, acryloyloxy groups,  
3 methacryloyloxy groups, and acryloyloxy alkoxy and methacryloyloxy alkoxy groups  
4 comprising an alkyl moiety having from about 2 to about 12 carbon atoms, thiol alkoxy  
5 groups comprising an alkyl moiety having from about 2 to about 12 carbon atoms, said alkyl  
6 moiety comprising  $CH_2$  groups, wherein one or more of said  $CH_2$  groups independently can  
7 be substituted by oxygen, sulfur, or an ester group; provided that at least 2 carbon atoms  
8 separate said oxygen or said ester group.

1           129. (New) The method of claim 126 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1           130. (New) The method of claim 127 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1           131. (New) The method of claim 128 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1           132. (New) The method of claim 126 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

1           133. (New) The method of claim 127 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

1           134. (New) The method of claim 128 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

1           135. (New) The method of claim 129 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

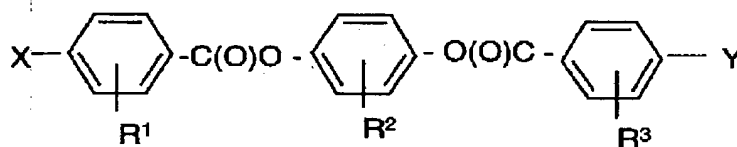
1           136. (New) The method of claim 130 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

1           137. (New) The method of claim 121 wherein the blend of randomly  
2 substituted mesogens has a  $T_c$  of from about 20 °C to about 37 °C.

1           138. (New) A method for producing a blend comprising randomly substituted

2 mesogens, said method comprising:

3 providing one or more platform molecules have the following general structure:



4 wherein

6 X comprises a terminal functionality and Y comprises a polymerizable

7 group in about 50 wt% or more of said blend, and one or more

8 members selected from the group consisting of X and Y

9 comprises one or more spacer groups;

10 R<sup>2</sup> is a bulky organic group whereby, when both X and Y are reacted with

11 polymerizable groups to produce polymerizable mesogens, R<sup>2</sup>

12 provides sufficient steric hindrance to achieve a nematic state at

13 room temperature while suppressing crystallinity of said

14 polymerizable mesogens at room temperature; and,

15 R<sup>1</sup> and R<sup>3</sup> are selected from groups less bulky than R<sup>2</sup>; and

16 independently substituting at least one member selected from the group

17 consisting of X and Y with a polymerizable group selected from the group

18 consisting of acryloyloxy alkoxy groups and methacryloyloxy alkoxy

19 groups, thereby producing a blend of randomly substituted mesogens

20 having a T<sub>c</sub> of from about 20 °C to about 37 °C.

1 139. (New) The method of claim 138 wherein said polymerizable groups are



2 methacryloyloxy alkoxy groups.

1 140. (New) The method of claim 138 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.

1 141. (New) The method of claim 139 wherein said terminal functionalities are  
2 selected from the group consisting of hydroxyl groups, amino groups, sulfhydryl groups,  
3 halogen atoms, alkoxy groups, and spacer groups.